

Selected quotes from reviews of *Creating Symmetry*, by Frank A. Farris

Evelyn Lamb of *Scientific American*, says:

*In his new book *Creating Symmetry*, Frank Farris uses ideas from advanced mathematics, such as complex analysis and abstract algebra, to transform snapshots of landscapes, flowers, or even his dinner into beautiful repeating designs.*

*I first heard of [Frank Farris](#)'s work a few years ago when he spoke at the Joint Mathematics Meetings about his art exhibition [Seeing Symmetry](#), and I was immediately enchanted. A little while later, I read about his "[impossible wallpaper](#)," which appears to have mathematically impossible five-fold rotational symmetry. Now he has published a book about his work, [Creating Symmetry: the Artful Mathematics of Wallpaper Patterns](#). The book is a beautifully illustrated guide to fusing mathematical and artistic creativity to generate fascinating and visually appealing designs.*

Read more at <http://blogs.scientificamerican.com/roots-of-unity/creating-symmetry-frank-farris/>

Mark Hunacek at *MAA Reviews*, says:

*This is, both literally and figuratively, a beautiful book. It contains lots of interesting mathematics (hence the "figurative" beauty) but it also contains many full-color, and visually quite striking, pictures. In fact, in both its oversized shape and contents, the book has the appearance of, and could function as, a slim coffee-table book, albeit one with much more sophisticated print content than the average such book.*

*This book was also, I must confess, a bit of a surprise to me. Because I came to it familiar, as most readers of this column are, with dihedral groups, and had also worked my way, years ago, through the proof that there are 17 wallpaper groups and 7 frieze groups, I assumed that I would already be pretty familiar with the topics covered here; in fact, however, I was wrong. I learned quite a bit from this book, including relationships between symmetry and areas of mathematics that I previously had no idea existed. Indeed, in addition to group theory (which is expected to appear), we see used here such topics as complex analysis, Fourier series, partial differential equations (specifically the wave equation), the modular group, and quadratic number fields.*

Read more at <http://www.maa.org/press/maa-reviews/creating-symmetry-the-artful-mathematics-of-wallpaper-patterns>

Adhemar Bultheel, writing for the Book Reviews section of the European Mathematical Society website, says:

*This is a marvelous book that brings groups, and along the way many other mathematical concepts, to the reader in an unconventional way. Rather than by an axiomatic approach, the concepts are introduced as required by our urge to understand the mathematical rules that guide and restrict an otherwise unbound*

*creativity in designing the patterns. It is rather specific for the application in mind, but it is very stimulating as a first contact to abstract algebra.*

Read more at <http://www.euro-math-soc.eu/review/creating-symmetry-artful-mathematics-wallpaper-patterns>

Pradeep Mutalik, in Quanta Magazine, wrote

*Lavished with many beautiful illustrations of this kind, Farris' book is a joyful yet serious exploration of how mathematics can create beautiful patterns and provide us with a deep understanding of symmetry, one of the underlying principles of great art.*

Read more at <https://www.quantamagazine.org/20151008-symmetry-math-curves-puzzle/>

Stephen Ornes of the *Proceedings of the National Academy of Sciences* (PNAS), wrote a profile piece about me and my method. See <http://www.pnas.org/content/112/45/13747>

Read quotes from prepublication reviews at the book website: <http://press.princeton.edu/titles/10435.html>